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United States
Department of
Agriculture

Soil
Conservation
Service

Portland,
Oregon



in cooperation with

Oregon
Department of
Water Resources

Water Supply Outlook for Oregon

as of MARCH 1, 1981



TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

COVER PHOTO: SNOW SURVEYORS MAKING SPECIAL MEASUREMENTS OF THE SNOWPACK
NEAR MT. ST. HELENS VOLCANO, WASHINGTON, APRIL 1980.

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 510, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	Room 129, 2221 East Northern Lights Blvd., Anchorage, Alaska 99504
Arizona	Room 3008, Federal Building, 230 N. First Ave., Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno, Nevada 89505
Oregon	1220 S. W. Third Ave., Portland, Oregon 97204
Utah	4420 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U. S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82602

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Snow Surveys Branch, California Department of Water Resources, P.O. Box 388, Sacramento, California 95802 --- for British Columbia by the Ministry of the Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia V8V 1X5 --- for Yukon Territory by the Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory Y1A 3V1 --- and for Alberta, Saskatchewan, and N.W.T. by the Water Survey of Canada, Inland Waters Branch, 110-12 Avenue S.W., Calgary, Alberta T3C 1A6.



☆ GPO 796-768

WATER SUPPLY OUTLOOK FOR OREGON

and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued

MARCH 1, 1981

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In Cooperation with

OREGON
DEPARTMENT
OF
WATER RESOURCES

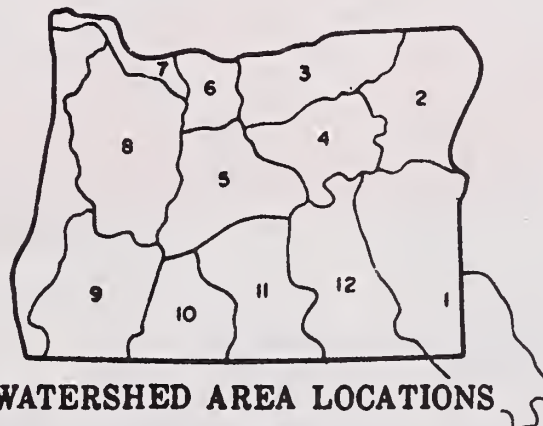
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WATERSHED AREA LOCATIONS

WATER SUPPLY OUTLOOK AND SUMMARY FOR OREGON

MARCH 1, 1981

*
* Water supplies will be much below average for most users dependent upon *
* direct diversion from streams. Reservoir storage is good in most cases *
* and will supply adequate water for those with access. The mountain *
* snowpack continues at record and near record low levels and compares *
* closely to 1977. Precipitation during February was normal to above in *
* all areas of the state except the Rogue basin which was below average. *
* Summer streamflow will be much below average throughout the state. *
*

SNOW COVER

This year's March 1 snowpack compares very closely to 1977's record low measurement except for a small narrow area which runs from east of Lakeview towards Baker and through the Wallowa mountains. This area has a snowpack of 60 to 70% of average. The rest of the state varies from 50% on the John Day to lows of 5% of average on the Clackamas and 2% on the Umpqua and Illinois rivers. There is significant measureable snow only at the highest elevation snow courses throughout the Cascades.

PRECIPITATION

Precipitation picked up during February from January's low amounts. Freezing levels were high during most storms and the precipitation came as rainfall. Amounts received were average to above average throughout the state except for the Rogue basin which was slightly below average. Precipitation for the November-February winter period has been below normal in the Umpqua and Rogue basins, Lake, Harney and Malheur counties; and close to average elsewhere. Temperatures have been warmer than usual and have been the principal cause of the poor snowpack accumulation.

RESERVOIR STORAGE

Storage is close to average in most irrigation reservoirs. Twenty-five principal reservoirs were storing 2,103,000 acre feet on March 1. This is 99% of average and 68% of capacity. Reservoirs with potential water problems include Clear Lake (Wasco), Gerber, Fish Lake, Fourmile Lake and Crescent Lake.

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STREAMFLOW

Streamflow during February was above average in the north 1/2 of the state and below to much below average in southern Oregon.

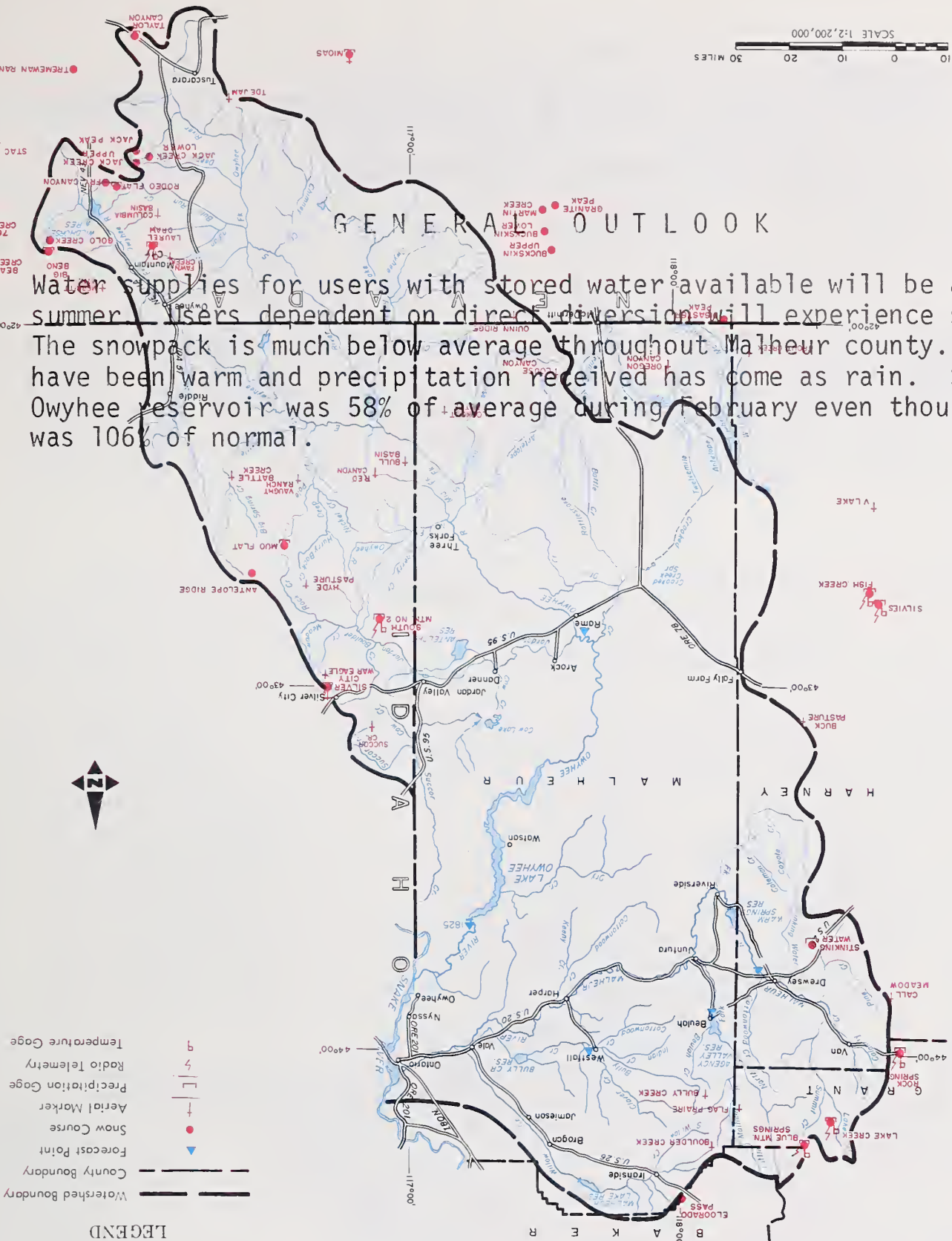
Forecasts of representative spring and summer streamflow for Oregon are as follows:

<u>STREAM</u>	<u>PERIOD</u>	<u>FORECAST</u> <u>% of 1963-77 AVG.</u>
Owyhee net Inflow	March-July	35
Malheur nr. Drewsey	March-July	67
Deschutes @ Benham Falls	March-July	68
Grande Ronde @ LaGrande	April-July	67
Willamette Mid.Fk. nr. Oakridge	April-July	68
Upper Klamath Lake net Inflow	March-July	50
Rogue @ Raygold	April-July	51
Silvies nr. Burns	March-July	65

These forecasts assume normal weather conditions will occur from now until the end of the forecast period. If precipitation during this period is less than average, streamflow will be less than forecast.

The forecasts in this bulletin are a result of coordinated activity between the Soil Conservation Service and the National Weather Service as an effort to provide the best possible service to water users.

WATER SUPPLY OUTLOOK OWYHEE, MALHEUR WATERSHEDS OREGON



Water supplies for users with stored water available will be adequate this summer. Users dependent on direct diversion will experience shortages. The snowpack is much below average throughout Malheur county. Temperatures have been warm and precipitation received has come as rain. Streamflow into Owyhee Reservoir was 58% of average during February even though precipitation was 106% of normal.

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Bully Creek at Warm Springs	5.6	44	March-May		12.6 ^b
Malheur near Drewsey	62	67	March-July		92
	45	62	April-Sept.		73
Malheur, North Fork at Beulah	53	72	March-July		74
	48	72	April-Sept.		67
Owyhee Reservoir net Inflow	181	35	March-July	432	510
	97	25	April-Sept.	387	392
Owyhee at Rome	189	35	March-July		539 ^b
Succor Creek near Jordan Valley	5.7	42	March-July		13.6 ^b

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second. Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Owyhee near Rome	2000	Apr. 7	May 14
	1000	Apr. 20	May 28
	500	Apr. 28	June 11

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Beulah Reservoir	60.0	31.7	33.5	34.2
Bully Creek	30.0	25.9	22.3	15.8
Owyhee	715.0	563.7	629.9	516.8
Warm Springs	191.0	158.4	129.8	108.2

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Jordan Creek	3	35	43
Malheur River	5	70	71
Owyhee River	6	27	32

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS

OREGON

GENERAL OUTLOOK

Water supplies for users with stored water available will be adequate this summer. Shortages probably will occur for users dependent upon direct diversion. Snowpack increases did occur in the Wallowa mountains but the snow cover as a percent of average on other watersheds remains close to last month. Precipitation was 156% of average during February.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last year	Average ^c
Anthony Creek blw. No. Fork nr. No. Powder	12.7	77	March-July		16.5
Bear near Wallowa	50	77	April-Sept.		65
Big Cr. blw. Burn Cr. nr. Medical Spring	8.6	75	March-July		11.5
Burnt near Hereford	26	57	March-July		45
	21	58	April-Sept.		36
Catherine near Union	45	70	April-Sept.		64
Deer Creek abv. Phillips Res. nr. Sumpter	9.5	55	March-July		17.3
Eagle Creek abv. Skull Creek	135	80	April-July		169
	147	80	April-Sept.		184
Grande Ronde at La Grande	132	68	March-July	216	194
	109	68	April-Sept.	184	161
Hurricane near Joseph	35	77	April-Sept.		46
Imnaha at Imnaha	232	76	April-Sept.		305
Lostine near Lostine	95	77	April-Sept.		123
Pine Creek nr. Oxbow	161	70	March-July		230
Powder near Sumpter	45	79	April-July		57
	46	79	April-Sept.		58
Wallowa, East Fork near Joseph	9.2	75	March-Sept.		12.2
	8.6	75	April-Sept.		11.5
Wallowa at Joseph	55	80	May-July		69
Wolf Creek Res. net Inflow	7.0	53	March-June		13.2 ^b

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Phillips Lake	73.5	56.8	44.8	50.1
Thief Valley	17.4	17.7	17.4	17.3
Unity	25.2	23.4	15.1	15.0
Wallowa Lake	37.5	25.2	17.3	22.5
Wolf Creek	19.4	6.4	3.4	--

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Burnt River	4	66	62
Grande Ronde River above La Grande	3	46	33
Powder River	5	67	60
Wallowa, Imnaha, Catherine Creek	6	66	66

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Eagle Cr.abv.Skull Cr.	225	July 10	July 25
	160	July 18	Aug. 5
Catherine Cr.nr.Union			Avg.value 49
	34	Aug. 1	
	100	June 22	July 9
	50	July 13	July 28
Powder near Sumpter	100	June 4	June 25
	20	July 7	July 22
Deer Cr. abv. Phillips Res. nr. Sumpter	40	May 19	June 17
	10	June 9	July 6

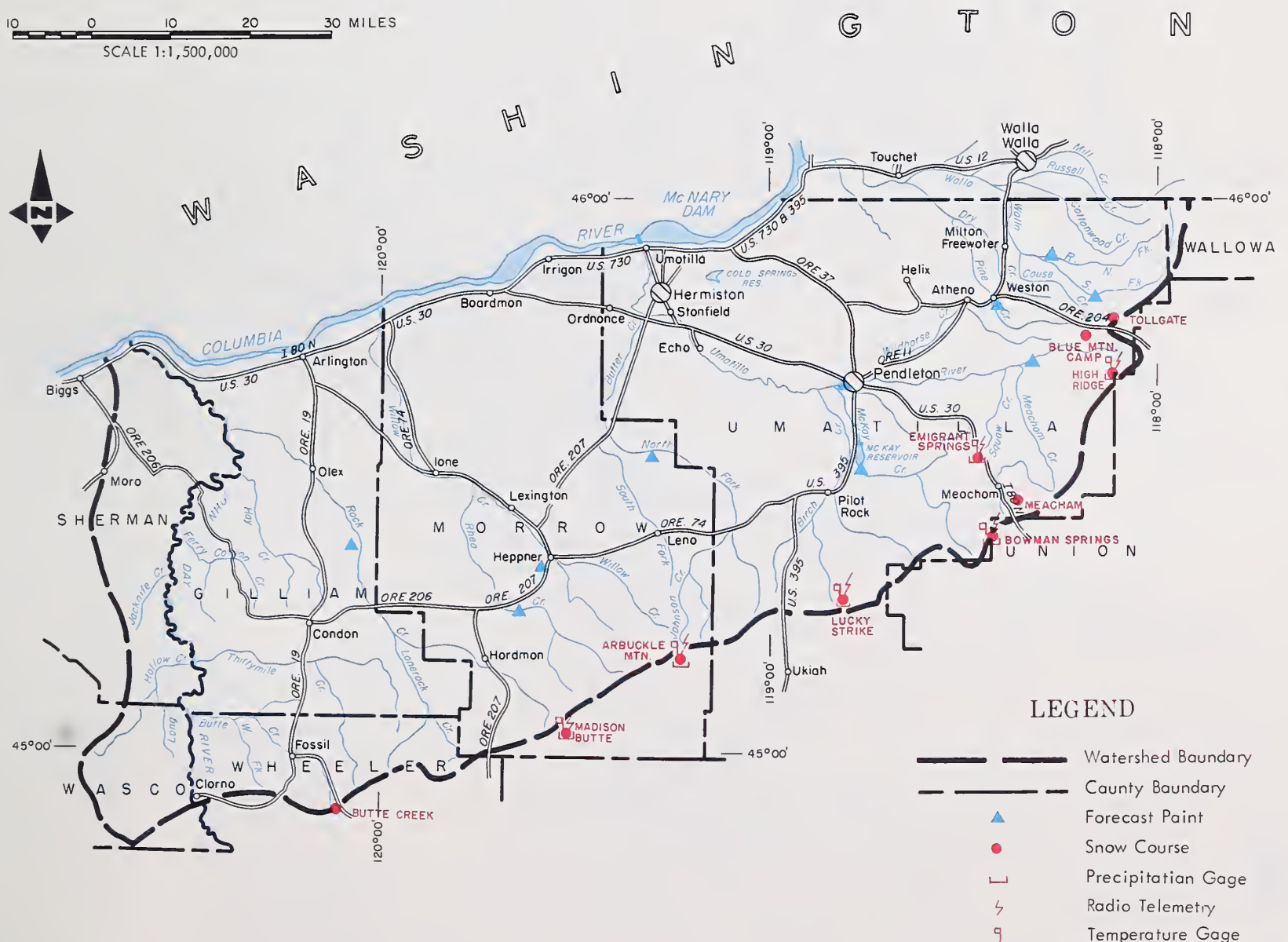
(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS OREGON

GENERAL OUTLOOK

Below average water supplies are forecast for Morrow, Umatilla and Gilliam counties. The mountain snowpack is extremely poor and compares closely to 1977's record low. Precipitation was much above average during February but came in the form of rain. Reservoir storage is now close to average but streamflow is forecast to be much below average this summer.

10 0 10 20 30 MILES
SCALE 1:1,500,000



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Butter Creek nr. Pine City	7.1	65	March-July		10.7
Couse Creek nr. Milton Freewater	4.0	71	March-July		5.6 ^b
McKay near Pilot Rock	12.2	55	April-July		22
	12.2	55	April-Sept.		22
Pine Creek near Weston	3.2	73	March-July		4.4 ^b
Rhea Creek nr. Heppner	4.0	65	March-July		6.2
Rock Creek abv. Cayuse Canyon nr. Condon	10.9	65	March-July		16.8 ^b
Umatilla near Gibbon	66	67	March-Sept.		99
	52	66	April-Sept.		78
Umatilla at Pendleton	122	60	March-Sept.		204
	90	60	April-Sept.		150
Walla Walla, South Fork near Milton	67	82	March-Sept.		82
	54	78	April-Sept.		69
Willow Creek at Heppner	4.4	65	March-July		6.8

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Umatilla at Pendleton	550	Apr. 20	May 17
So. Fk. Walla Walla near Milton	200	May 13	June 9
	98	Aug.-Sept. Min. flow	Avg. value 105

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Cold Springs	50.0	35.6	33.1	40.0
McKay	73.8	45.8	42.6	41.1

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
McKay Creek	3	27	16
Umatilla River	3	57	35
Walla Walla River	2	54	30

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

Below average water supplies are forecast for the John Day basin. The mountain snowpack is 45 to 50% of average. Precipitation during February was 146% of average but came mostly in the form of rain and unfortunately has already occurred as runoff. The John Day at Service Creek flowed at 123% of normal during the past month. Summer streamflow will be much below average.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Camas Creek near Ukiah	26	62	March-July		42
	17.8	52	April-Sept.		34
John Day, Middle Fork at Ritter	86	65	March-July		133
	73	65	April-Sept.		113
John Day, North Fork at Monument	479	75	March-July		639
	406	75	April-Sept.		541
Mountain Creek nr. Mitchell	3.0	75	March-July		4.0 ^b
Strawberry near Prairie City	5.8	79	March-July		7.3
	6.1	79	April-Sept.		7.7

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
John Day at Service Cr.	120	Aug. 1	Avg. value 212

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
John Day, North Fork	7	56	45
John Day abv. Dayville	5	63	60

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

UPPER DESCHUTES, CROOKED WATERSHEDS

OREGON

GENERAL OUTLOOK

Below average water supplies are forecast for users dependent on direct diversion and Tumalo Irrigation District. All other users with stored water available should have adequate supplies. Crescent Lake storage is 41% of average. Other reservoirs are storing close to average to above average amounts for March 1. The mountain snow cover compares closely to the record lows measured in 1977. Summer streamflow will be much below average.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average C
Beaver Creek near Paulina	11.4	72	April-July		16.0
	11.6	72	April-Sept.		16.1
Crane Prairie Reservoir total Inflow	79	66	April-Sept.		120
Crescent at Crescent Lake	7.6	38	March-July		20
	8.4	38	April-Sept.		22
Crooked River nr. Prineville	84	63	March-July		134
	57	63	April-Sept.		90
Crooked R.,No. Fk. blw. Lookout Cr. nr. Paulina	5.4	41	March-July		13.2b
Deschutes below Bend	138	--	Aug.-Sept.		--
Deschutes at Benham Falls	246	67	April-July		368
	478	67	April-Sept.		713
Deschutes below Snow Creek	46	67	March-Sept.		69
	41	65	April-Sept.		63
Deschutes, Little near La Pine	48	54	March-July		89
	37	44	April-Sept.		84
Ochoco Reservoir net Inflow	15.1	63	March-July		24
	10.1	63	April-Sept.		16
Squaw near Sisters	34	69	April-Sept.		49
Tumalo near Bend	32	70	April-Sept.		45

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Crane Prairie net Inflow	234 148 Peak	Peak Oct. 31 May 1	
Crooked R. near Post	Not forecast this month.		
Deschutes at Bend	1500	Will not reach 1500	July 1
Little Deschutes nr.	400	Will not reach 400	June 7
	200	May 23	July 8
Squaw Cr. nr. Sisters	100	July 18	Aug. 16
Tumalo Cr. nr. Bend	235 207 150 71	June 4 June 5 June 13 June 27	June 23 June 25 July 5 Aug. 7

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Crane Prairie	55.3	31.4	32.5	46.1
Crescent Lake	86.9	25.9	29.0	63.5
Ochoco	47.5	37.4	39.5	28.8
Prineville	153.0	130.7	126.0	101.1
Wickiup	200.0	156.3	154.7	173.2

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Crooked, Ochoco	4	55	47
Deschutes abv. Wickiup	3	58	41
Little Deschutes	4	50	24
Tumalo & Squaw Crs.	3	51	37

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS

OREGON

GENERAL OUTLOOK

Below average water supplies are forecast for Hood and Wasco counties. The mountain snowpack compares closely to the record lows measured in 1977. Precipitation has been close to average so far this winter but temperatures have been very warm and as a result the snowpack is very poor. Summer streamflow will be much below average.

10 0 10 20 MILES
SCALE 1:1,000,000



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Hood River at Tucker Bridge near Hood River	123	51	April-July		242
	147	51	April-Sept.		289
Hood River, West Fork near Dee	74	58	April-July		127
	86	58	April-Sept.		149
White below Tygh Valley	55	48	April-July		114
	62	48	April-Sept.		129

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Clear Branch Inflow	*20	July 15-31	**39
*Average cfs forecast to flow for this two-week period.			
**Average cfs for period of record.			
White blw. Tygh Valley	200	June 5	July 3
	110	Aug. 1	Avg. value 145

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Clear Lake (Wasco)	11.9	2.6	1.6	4.6

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Hood River	5	20	16
Mile Creeks	1	14	10
White River	3	25	21

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

LOWER COLUMBIA WATERSHEDS

OREGON

GENERAL OUTLOOK

The streamflow forecast for the Columbia River at The Dalles hasn't changed from last month. It is still 77 percent of normal. The Sandy River is forecasted to flow at 62 percent of normal. The snowpack in the headwater of the Columbia River has improved during the past month and is now near normal. The snowpack in the Sandy River watershed is only 23 percent of normal. Water users diverting directly from streams may experience shortages this spring and summer.



SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average C

HISTORICAL DATA (Columbia River at The Dalles)

YEAR	STREAMFLOW ^a (1,000 A F)			REGULATED PEAK (1,000 cfs)	DATE
	APR - SEPT	APR - JUNE	MAY - JUNE		
1958	97,700	72,000	58,600	593	May 31
1959	112,500	71,900	58,900	555	June 23
1960	97,000	64,000	48,000	442	June 6
1961	101,400	74,400	64,000	699	June 8
1962	94,600	64,100	49,200	460	June 5
1963	87,000	56,300	46,200	437	June 18
1964	109,020	70,739	61,313	662	June 18
1965	114,137	80,024	62,477	520	June 9
1966	87,268	58,120	45,922	396	June 12
1967	107,771	72,408	65,112	622	June 10
1968	89,000	55,500	47,900	404	June 13
1969	112,300	85,700	63,800	515	May 15
1970	88,100	62,800	55,200	425	May 28
1971	122,900	88,400	73,700	557	May 13
1972	134,700	96,400	81,400	619	June 20
1958-72 Avg.	104,300	72,900	59,900	529	

LOWER COLUMBIA RIVER FLOOD STAGES (with 9.5' tide at Astoria)

VANCOUVER GAGE (Weather Bu)	FLOW AT THE DALLES (1,000 cfs)	DRAINAGE DISTRICT PUMPHOUSE						
		SANDY	SAUVIE ISL.	SCAPPOOSE	DEER ISL.	RAINIER	BEAVER	WOODSON
		RIVER MILES						
		118.9	96.0	91.0	77.0	62.0	52.0	47.0
35 (1894)	1210	41.2	34.2	33.3	28.5	21.9	17.5	15.5
34	1160	40.5	33.5	32.5	27.7	21.2	17.0	15.0
33	1100	39.6	32.4	31.4	26.7	20.2	16.1	14.3
32 (1972)	1050	38.9	31.5	30.5	25.7	19.5	15.4	13.7
31 (1948)	1000	38.0	30.7	29.5	25.1	18.8	14.7	13.0
30	943	36.6	29.5	28.5	24.3	18.1	14.0	12.4
29	897	35.5	28.5	27.7	23.7	17.5	13.4	11.8
28	853	34.3	27.5	26.7	22.8	17.0	13.0	11.4
27 (1956)	811	33.0	26.5	25.6	21.8	16.2	12.5	11.0
26 (1950)	771	32.1	25.5	24.6	20.9	15.5	12.2	10.7
25	733	30.7	24.2	23.2	19.7	14.6	11.7	10.3
24	697	29.7	23.0	22.2	19.0	14.1	11.4	10.2
23	662	29.0	22.3	21.4	18.4	13.6	11.2	10.0
22	628	28.1	21.4	20.3	17.2	13.0	10.9	9.7
21	595	27.2	20.7	19.5	16.4	12.6	10.6	9.6
20 (1954)	564	26.2	19.8	18.6	15.5	12.1	10.2	9.4
19	534	25.5	19.2	18.0	15.0	11.8	10.0	9.3
18	501	24.4	18.3	17.2	14.3	11.4	9.8	9.1
17	479	23.4	17.4	16.4	13.7	11.0	9.6	8.9
16	452	22.4	16.5	15.5	13.0	10.5	9.3	8.7

WATER SUPPLY OUTLOOK

WILLAMETTE WATERSHEDS

OREGON

GENERAL OUTLOOK

Area 8

Water supplies in the Willamette Valley should be adequate this summer even though the mountain snowpack is poor. Streamflow this spring and summer is very dependent on precipitation that will occur from now through June. Hopefully this will be close to normal. If below average precipitation occurs, shortages will occur on unregulated streams.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Clackamas at Estacada	400	60	April-July		672
	469	60	April-Sept.		786
Clackamas above Three Lynx	304	59	April-July		515
	362	60	April-Sept.		607
McKenzie at McKenzie Bridge	325	72	April-July		452
	430	72	April-Sept.		598
McKenzie near Vida	737	72	April-July		1,024
	906	72	April-Sept.		1,259
McKenzie, So. Fork near Rainbow	124	60	April-July		207
	152	65	April-Sept.		234
Mohawk River near Springfield	82	70	March-July		117
Oak Grove Fork above Power Intake	86	65	April-July		132
	109	65	April-Sept.		168
Row near Dorena	74	75	April-July		98
	78	75	April-Sept.		104
Santiam, North at Mehama	511	68	April-July		752
	585	68	April-Sept.		860
Santiam, South at Waterloo	388	71	April-July		547
	419	71	April-Sept.		590
Scoggins Creek nr. Gaston	20	70	March-July		29
Thomas Creek near Scio	82	70	March-July		117
Willamette, Coast Fork nr. London	20	75	April-July		27
Willamette, Mid.Fk. blw. N.Fk. nr. Oakridge	461	68	April-July	559	678
	528	68	April-Sept.	625	776
Willamette, No. Fk. of Mid. Fk. near Oakridge	120	64	April-July		188
	134	64	April-Sept.		209
Willamette at Salem	2,949	70	April-July		4,213
	3,288	70	April-Sept.		4,697

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Clackamas River	1	13	5
McKenzie River	3	63	19
Row River	2	70	8
Santiam River	4	40	11
Willamette, Mid. Fk.	4	64	26

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Blue River	85.6*	41.0	31.2	27.8
Cottage Grove	30.0*	9.7	8.7	8.0
Cougar	155.2*	60.3	47.5	41.2
Detroit	299.9*	159.2	103.1	97.6
Dorena	70.5*	32.7	20.4	18.7
Fall Creek	115.0*	51.0	32.9	35.1
Fern Ridge	94.2*	51.9	42.1	35.5
Foster	30.0*	8.4	6.7	5.7 ^b
Green Peter	270.0*	158.8	82.9	97.1
Hills Creek	200.0*	84.2	69.6	60.0
Lookout Point	337.2*	95.0	64.6	94.0
Timothy Lake	61.7	49.7	31.5	54.8
Henry Hagq Lake	53.0	46.4	48.5	--

* Multiple purpose
reservoir--space
reserved primarily
for flood runoff.

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

Water shortages will occur for many users in the Rogue and Umpqua basin this next summer. Most problems will be on unregulated streams for users dependent on direct diversion. The mountain snowpack compares closely to the record lows measured in 1977 and in fact in some locations is even worse. Winter precipitation November through February has been 70% of normal. The snowpack is 2% of average on the Umpqua and the Illinois rivers. Summer streamflow is expected to be much below average.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Applegate near Copper	31	24	April-Sept.		129
Clearwater above Trap Creek	52	73	April-Sept.		71
Cow Creek nr. Azalea	12.0	39	March-July		31
Fourmile Lake net Inflow	2.0	50	April-Sept.		3.9
Grave Creek at Pease Bridge nr. Placer	7.5	51	March-July		14.7
Hyatt Reservoir net Inflow	2.0	40	April-July		4.9
Illinois River near Kerby	70	40	April-July		176
	73	40	April-Sept.		183
Little Butte, N.Fk. at Fish Lake nr. Lake Cr.	5.8	41	April-Sept.		14.0
Little Butte, S. Fk. near Lake Creek	15.3	49	April-July		31
Red Blanket Creek nr. Prospect	21	60	April-July		35
Rogue above Prospect	138	54	April-July		257
	175	56	April-Sept.		314
Rogue, South Fork near Prospect	35	57	April-July		62
	44	60	April-Sept.		74
Rogue at Raygold near Central Point	383	51	April-July	594	756
	512	56	April-Sept.	728	919
Rogue at Grants Pass	457	50	April-Sept.		913
Sucker Cr. Blw. Little Grayback nr. Holland	18.2	31	April-July		58
Umpqua, No. blw. Lemolo Lake, Nr. Toketee Falls	113	66	April-Sept.		170
Umpqua, No. at Winchester	580	76	April-July		768
Umpqua, So. near Brockway	230	60	April-July		380
Umpqua, So. at Tiller	87	48	April-July		183
So. Fk. Big Butte Cr.	24	65	April-July		37

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Cow Creek nr. Azalea	20	June 10	July 4
	10	July 15	Aug. 19
Little Butte Creek, South Fork	100	Apr. 12	May 15
South Umpqua nr. Brockway	90	July 1	July 30
South Umpqua at Tiller	140	June 15	July 10
	90	July 5	July 30
	60	July 26	Aug. 27

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Emigrant Lake	39.0	30.1	33.8	29.3
Fish Lake	8.0	5.5	5.2	6.0
Fourmile Lake	16.1	4.2	6.0	9.9
Howard Prairie	60.0	43.5	58.0	45.7
Hyatt Prairie	16.1	11.5	14.3	12.4
Lost Creek	315.0	226.9	234.5	--

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Applegate	2	33	24
Bear Creek	2	60	43
Butte Creek	4	58	18
Illinois River	3	4	2
North Umpqua	3	11	2
Rogue River	4	48	23

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

Water shortages are forecast for Klamath county. Problems will principally occur on unregulated streams and for users dependent on direct diversions. Most users with access to stored water will have adequate supplies. The mountain snowpack compares closely to the record low measured in 1977 and in fact is worse on the Williamson. Summer streamflow is forecast to be much below average. Even though February precipitation was 140% of average, the inflow to Upper Klamath Lake was only 70% of average. The storage in Gerber is 65% and in Clear Lake 64% of average.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Clear Lake Reservoir Inflow	33	45	March-July		74
Gerber Reservoir Inflow	16.0	48	March-July		33
Sprague near Chiloquin	95	35	March-July		272
	84	35	April-Sept.		242
Upper Klamath Lake net Inflow	316	50	March-July	449	632
	263	50	April-Sept.	361	526
Williamson below Sprague River	184	45	April-Sept.		409

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Clear Lake	440.2	159.6	199.2	250.7
Gerber	94.0	36.6	55.0	55.9
Upper Klamath Lake	584.0	445.9	430.9	409.6

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Lost River	4	44	48
Sprague River	3	41	38
Upper Klamath	6	35	21
Williamson River	3	18	7

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Chewaucan near Paisley	40	45	March-July	82	88
Cottonwood Creek nr. Lakeview	6.7	58	March-July		11.6
Deep above Adel	50	62	March-July		80
Drews Reservoir net Inflow	13.8	33	March-July		41
Honey Creek near Plush	10.0	50	March-July		20
Silver Creek near Silver Lake	7.6	54	April-July		14.1
Twentymile near Adel	15.6	60	March-July		26
Bridge Cr. nr. Spahr Ranch nr. Silver Lake	1.0	29	April-July		3.4

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Deep Cr. above Adel	100	June 1	June 21
Honey Cr. nr. Plush	100	Apr. 25	May 15
	50	May 5	May 30
Twentymile near Adel	10	June 15	July 3

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Cottonwood	8.7	3.0	4.9	3.5
Drews	63.0	36.0	45.8	42.5
Thompson Valley	19.5	4.4	4.8	15.3

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Chewaucan River	3	41	38
Deep Creek	4	40	61
Drew Creek	3	37	37
Honey Creek	3	23	36
Silver Creek	3	35	14
Twentymile Creek	4	35	64

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

Harney county water users will have much below average supplies next summer except for those that have access to supplemental stored water. The mountain snowpack is 45 to 65% of average. Summer streamflow is forecast to be much below average except for the Donner und Blitzen and Trout Creek which will be below average.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Donner und Blitzen near Frenchglen	44	75	March-July		59
	43	75	April-Sept.		57
Silver near Riley	8.7	55	April-July		15.8
Silvies River near Burns	62	65	March-July		96
	50	65	April-Sept.		77
Trout Creek near Denio	7.4	80	March-July		9.3
	7.0	80	April-Sept.		8.8

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Silvies nr. Burns	400	Apr. 18	May 5
	200	Apr. 30	May 21
	100	May 20	June 9
	50	June 1	June 23
Donner und Blitzen	200	June 1	June 15
	100	June 15	July 5
<hr/>			
	<u>GAGE HEIGHT</u>	<u>SURFACE ACRES</u>	<u>AVG. SURFACE ACRES</u>
Malheur Lake at Break in Cole Island Dike near Voltage			
July 1	93.04	35,700	40,000
Aug. 1	92.45	27,900	33,000

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Donner und Blitzen R.	4	55	67
Silver Creek	3	55	47
Silvies River	4	63	63
Trout Creek	3	34	45

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 1

MARCH 1, 1981

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. C
OWYHEE, MALHEUR WATERSHEDS AREA 1					
Antelope Ridge (Ida.)	2/28	0	0.0	6.0	6.9 ^b
Battle Creek (Ida.) *	2/27	0	0.0	0.0	3.2
Bear Creek (Nev.)	2/27	32	7.7	--	17.9
Big Bend (Nev.)	2/25	5	1.6	8.1	7.5
Blue Mountain Springs	2/24	30	10.6	14.8	14.2
Blue Mtn. Spgs. Plw.(T)	2/24	--	7.2	16.6	--
Blue Mtn. Spgs. Plw.(S)	2/24	31	8.8	13.0	15.1 ^b
Blue Mtn. Spgs. Plw.(M)	2/24	--	4.4	15.2	11.3 ^b
Boulder Creek *	2/27	TR	0.1	3.2	--
Buck Pasture *	2/27	0	0.0	0.0	2.3
Buckskin, Lower (Nev.)	2/27	8	3.0	7.7	7.1
Buckskin, Upper (Nev.)	2/27	6	2.2	8.5	8.3
Bull Basin (Ida.) *	2/27	0	0.0	0.0	1.2
Bully Creek *	2/27	0	0.0	0.1	2.1
Call Meadows *	2/27	TR	0.1	1.9	3.7
Columbia Basin (Nev.)	2/27	0	0.0	6.2	8.1 ^b
Disaster Peak (Nev.)	2/27	7	2.5	16.2	11.6
Eldorado Pass	2/27	6	2.4	2.0	3.1
Fawn Creek (Nev.)	2/25	24	6.9	4.8	--
Fish Creek *	2/27	36	13.0	24.8	20.0
Fish Creek	2/24	43	15.3	26.6	20.5 ^b
Fish Creek Pillow(T)	N/R			27.9	--
Fish Creek Pillow(S)	2/24	44	16.0	28.0	--
Fish Creek Pillow(M)	2/24	--	12.0	26.8	--
Flag Prairie *	2/27	TR	0.1	1.3	4.6
Fox Creek (Nev.)	2/27	11	3.6	---	9.6 ^b
Fry Canyon (Nev.)	2/25	6	2.5	7.4	5.9 ^b
Gold Creek (Nev.)	2/25	0	0.0	5.0	4.9
Gov't. Corrals	2/26	27	9.8	--	--
Granite Peak (Nev.)	2/27	25	5.5	15.8	13.1
Hyde Pasture (Ida.) *	2/27	TR	0.1	2.0	5.3
Jack Creek, Lower (Nev.)	2/25	0	0.0	3.5	--
Jack Creek, Upper (Nev.)	2/25	13	4.4	7.2	6.7
Jack Peak (Nev.)	2/25	37	10.4	21.3	--
Lake Creek R.S.	2/24	18	7.6	9.6	9.0
Lake Creek R.S. Plw.(T)	N/R			14.3	--
Lake Creek R.S. Plw.(S)	2/24	19	8.5	11.0	--
Lake Creek R.S. Plw.(M)	N/R			10.6	--
Laurel Draw (Nev.)	2/25	14	4.6	7.6	7.4 ^b
Logan Valley *	DISCONTINUED				
Lookout Butte *	2/27	0	0.0	0.0	0.2
Louse Canyon *	2/27	0	0.0	1.7	3.7
Martin Creek (Nev.)	2/27	9	2.3	11.2	8.4
Merritt Mountain (Nev.) *	2/27	1	0.1	7.0	6.9 ^b
Midas (Nev.) *	2/25	0	0.0	0.1	2.2
Mud Flat (Ida.)	2/28	4	1.6	6.5	6.0
Oregon Canyon *	2/27	0	0.0	8.4	4.4
Quinn Ridge (Nev.) *	2/27	0	0.0	0.0	1.6
Red Canyon (Ida.) *	2/27	TR	0.1	7.1	6.6
Rock Springs	2/23	7	3.2	7.6	5.0
Rock Spgs. Plw.(T)	2/23	--	1.7	--	--
Rock Spgs. Plw.(S)	2/23	6	2.5	6.0	--
Rock Spgs. Plw.(M)	2/23	--	1.6	--	--
Rodeo Flat (Nev.)	2/25	6	2.3	6.0	4.8
76 Creek (Nev.) *	2/27	16	5.1	11.9	10.7
Silver City (Ida.)	2/28	14	5.6	16.3	13.7
Silver City (Ida.) *	2/27	6	2.3	4.4	12.6 ^b
Silvies *	N/R			--	7.6
Silvies	2/24	16	6.4	13.1	9.8
Silvies Pillow (T)	2/24	--	5.5	12.9	--
Silvies Pillow (S)	N/R			13.1	--
Silvies Pillow (M)	2/24	--	5.2	6.3	19.3 ^b
South Mountain #2 (Ida.)	2/28	16	6.2	15.6	11.6
South Mtn. #2 Plw.(T)	2/28	--	5.8	--	--
Stag Mountain (Nev.) *	2/27	1	0.1	5.4	5.4 ^b
Stinking Water	2/27	TR	0.1	0.0	2.4
Succor Creek (Ida.) *	2/27	9	3.5	5.8	5.6
Taylor Canyon (Nev.)	2/25	0	0.0	3.9	4.5
Toe Jam (Nev.) *	2/27	9	3.0	10.7	8.6 ^b
Tremewan Ranch (Nev.) *	2/25	0	0.0	0.0	1.5
Trout Creek *	2/27	16	5.3	7.4	6.7
"V" Lake *	2/27	TR	0.1	9.4	6.1
Vaught Ranch (Ida.) *	2/27	0	0.0	0.1	4.1 ^b
War Eagle (Ida.) *	2/27	42	16.4	27.0	19.6 ^b

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. ^c
BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS AREA 2					
Aneroid Lake #2	2/25	69	19.2	26.4	27.6
Aneroid Lake #2 Plw.(T)	N/R				
Aneroid Lake #2 Plw.(S)	2/25	72	20.0	32.3	--
Aneroid Lake #2 Plw.(M)	2/25	--	20.7	25.7	--
Anthony Lake	2/27	39	12.8	20.2	22.7
Bald Mountain (OR) *	2/25	36	10.8	21.0	19.4
Beaver Reservoir (Rev.)	2/26	18	6.0	9.0	10.8
Beaver Res. Pillow (T)	N/R				
Beaver Res. Pillow (S)	2/26	10	1.8	6.8	--
Beaver Res. Pillow (M)	N/R				
Big Sheep *	2/25	62	17.4	22.5	23.1
Blue Mtn. Summit	2/25	23	6.3	7.5	7.9
Bourne	2/25	28	7.0	12.8	13.8
Bourne Pillow (T)	2/25	--	11.4	15.1	--
Bourne Pillow (S)	2/25	35	7.8	15.1	--
Bourne Pillow (M)	N/R			15.2	--
County Line	2/24	0	0.0	2.4	4.7
County Line (Rev.)	2/24	0	0.0	0.2	4.2
County Line Pillow (T)	2/24	--	0.4	--	--
County Line Pillow (S)	2/24	0	0.0	0.0	--
County Line Pillow (M)	2/24	--	0.0	0.1	--
Dooley Mountain	2/27	21	6.2	6.8	7.9
Eilertson Meadows	2/24	10	2.7	9.3	10.2
Eilertson Mdws. Plw.(T)	2/23	--	2.3	--	--
Eilertson Mdws. Plw. (S)	2/24	8	1.6	9.1	--
Eilertson Mdws. Plw.(M)	2/24	--	1.9	7.2	--
Eldorado Pass	2/27	6	2.4	2.0	3.1
Gold Center	2/25	20	4.4	9.1	11.5
Gold Center Pillow (T)	2/25	--	3.9	--	--
Gold Center Pillow (S)	2/25	12	3.4	8.3	--
Gold Center Pillow (M)	2/25	--	3.9	6.2	--
Goodrich Lake	e				
Little Alps	2/27	14	3.4	9.0	12.0
Little Antone	DISCONTINUED				
Little Antone (Alt.)	2/27	18	5.2	5.8	--
Lucky Strike	2/24	8	2.3	7.1	10.9
Lucky Strike Pillow (T)	N/R			2.4	--
Lucky Strike Pillow (S)	2/24	6	1.9	4.0	--
Lucky Strike Pillow (M)	2/24	--	0.4	1.7	9.7 ^b
Meacham	DISCONTINUED				
Mirror Lake *	2/25	133	37.2	58.9	58.3 ^b
Moss Spring	2/25	31	9.8	16.8	20.2
Moss Spring Pillow (T)	2/25	--	11.0	--	--
Moss Spring Pillow (S)	2/25	40	13.0	19.3	--
Moss Spring Pillow (M)	2/25	--	11.0	16.4	--
Mt. Howard Pillow (T)	N/R				
Mt. Howard Pillow (S)	2/25	40	12.5	12.5	--
Mt. Howard Pillow (M)	N/R			8.3	--
Schneider Meadow	2/25	62	20.6	25.4	26.7
Schneider Meadow Plw.(T)	N/R				
Schneider Meadow Plw.(S)	2/25	64	21.0	26.0	--
Schneider Meadow Plw.(M)	N/R			19.7	--
Schoolmarm	DISCONTINUED				
Standley *	2/25	59	16.5	28.0	25.5
Taylor Green	2/25	38	12.8	12.6	14.6
Taylor Green Pillow (T)	2/25	--	13.9	17.2	--
Taylor Green Pillow (S)	2/25	44	14.0	17.0	--
Taylor Green Pillow (M)	2/25	--	13.2	16.2	--
Tipton	2/25	23	5.4	9.1	9.6
Tipton Pillow (T)	2/25	--	6.8	10.2	--
Tipton Pillow (S)	2/25	30	7.9	10.2	12.6 ^b
Tipton Pillow (M)	2/25	--	5.9	8.2	--
Tollgate	DISCONTINUED				
TV Ridge *	2/25	26	7.3	20.3	15.4 ^b
West Eagle Meadows *	2/25	78	25.0	24.5	--
Wolf Creek Pillow (T)	2/25	--	11.4	12.9	--
Wolf Creek Pillow (S)	2/24	37	11.0	14.6	--
Wolf Creek Pillow (M)	2/24	--	11.3	11.8	--

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 1

MARCH 1, 1981

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. ^c
HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS AREA 6					
Brooks Meadow	2/26	4	1.0	7.5	10.2
Clear Lake	2/26	2	0.5	3.4	9.2
Clear Lake Pillow (T)	N/R				
Clear Lake Pillow (S)	2/26	6	1.8	6.0	--
Clear Lake Pillow (M)	2/26	--	1.2	--	--
Clear Lake Expt.	2/26	4	1.4	6.0	14.2
Greenpoint	2/26	2	0.9	15.4	15.0
Greenpoint Pillow (T)	N/R			17.1	--
Greenpoint Pillow (S)	2/24	3	0.8	17.2	--
Greenpoint Pillow (M)	2/24	--	0.9	15.9	--
Mt. Hood Test Site (T)	N/R			44.3	50.6
Mt. Hood Test Site (S)	2/25	40	13.2	46.0	45.9
Mt. Hood Test Site (M)	2/25	--	13.1	49.3	--
Mud Ridge Pillow (T)	2/26	--	2.4	19.0	--
Mud Ridge Pillow (S)	2/26	11	3.1	15.5	26.1
Mud Ridge Pillow (M)	2/26	--	2.4	19.4	--
Red Hill	2/26	13	3.7	23.4	33.4
Red Hill Pillow (T)	2/26	--	4.9	33.8	--
Red Hill Pillow (S)	2/26	17	4.5	26.2	--
Red Hill Pillow (M)	2/26	--	4.1	32.2	--
Still Creek	2/26	8	2.1	12.5	20.8
Switchback	2/26	3	0.9	15.8	12.8
Tilly Jane	2/22	19	5.6	29.0	36.4
LOWER COLUMBIA WATERSHED AREA 7					
Blazed Alder Pillow (T)	N/R				
Blazed Alder Pillow (S)	2/28	6	1.6	--	--
Blazed Alder Pillow (M)	2/28	--	1.0	--	--
Mt. Hood Test Site (T)	N/R			44.3	50.6
Mt. Hood Test Site (S)	2/25	40	13.2	46.0	45.9
Mt. Hood Test Site (M)	2/25	--	13.1	49.3	--
Mud Ridge Pillow (T)	2/26	--	2.4	19.0	--
Mud Ridge Pillow (S)	2/26	11	3.1	15.5	26.1
Mud Ridge Pillow (M)	2/26	--	2.4	19.4	--
North Fork Res. (T)	2/28	--	0.5	6.0	--
North Fork Res. (S)	2/28	5	1.0	--	--
North Fork Res. (M)	2/28	--	0.8	--	--
Still Creek	2/26	8	2.1	12.5	20.8
WILLAMETTE WATERSHEDS AREA 8					
Cascade Summit	2/25	26	6.1	10.5	24.9
Cascade Summit Plw. (T)	2/25	--	8.5	--	--
Cascade Summit Plw. (S)	2/25	35	9.0	12.8	--
Cascade Summit Plw. (M)	2/25	--	8.0	11.0	--
Champion	2/26	11	2.2	3.3	23.3
Clackamas Lake	3/2	0	0.0	6.6	11.3
Clackamas Lake Plw. (T)	N/R				
Clackamas Lake Plw. (S)	3/2	0	0.0	--	--
Clackamas Lake Plw. (M)	N/R				
Clear Lake	2/26	2	0.5	3.4	9.2
Clear Lake Plw. (T)	N/R				
Clear Lake Plw. (S)	2/26	6	1.8	6.0	--
Clear Lake Plw. (M)	2/26	--	1.2	--	--
Clear Lake Expt.	2/26	4	1.4	6.0	14.2

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. ^c
WILLAMETTE WATERSHEDS (CONT.)					
Daly Lake Plw. (T)	2/27	--	0.4	--	--
Daly Lake Plw. (S)	2/27	2	0.9	0.0	--
Daly Lake Plw. (M)	2/27	--	0.0	0.0	--
Dead Horse Grade	3/1	1	0.1	0.0	14.4
Golden Curry Creek	2/26	0	0.0	0.0	4.8 ^b
Hogg Pass	2/26	28	7.4	14.2	34.6
Hogg Pass Pillow (T)	2/26	--	8.4	17.3	--
Hogg Pass Pillow (S)	2/26	32	8.9	17.9	--
Hogg Pass Pillow (M)	2/26	--	8.5	18.0	--
Holland Meadows Plw.(T)	N/R				
Holland Meadows Plw.(S)	2/27	10	2.6	5.3	--
Holland Meadows Plw.(M)	2/27	--	2.3	2.8	--
^b Jump Off Joe Pillow (T)	2/26	--	0.8	0.0	--
^b Jump Off Joe Pillow (S)	2/26	2	0.5	0.0	--
^b Jump Off Joe Pillow (M)	2/26	--	0.5	0.0	--
Layng Creek	2/26	0	0.0	0.0	--
Little Meadows Plw.(T)	N/R				
Little Meadows Plw.(S)	2/27	5	1.1	1.5	--
Little Meadows Plw.(M)	2/27	--	1.2	1.9	--
Lost Creek Ranch	3/1	0	0.0	0.0	3.8
Lund Park	2/26	0	0.0	0.0	0.6
Marion Forks	2/26	0	0.0	0.9	12.0
Marion Forks Pillow (T)	2/25	--	0.0	--	--
Marion Forks Pillow (S)	2/26	0	0.0	1.4	--
Marion Forks Pillow (M)	2/26	--	0.0	1.0	--
Marys Peak	3/3	0	0.0	0.0	9.2 ^b
McCredie Springs	2/25	0	0.0	0.0	0.4 ^b
McKenzie	2/28	30	11.2	18.2	38.4
McKenzie Pillow (T)	N/R				
McKenzie Pillow (S)	2/28	29	10.0	17.0	--
McKenzie Pillow (M)	2/28	--	11.0	15.7	--
Mt. Hood Test Site (T)	N/R			44.3	50.6 ^b
Mt. Hood Test Site (S)	2/25	40	13.2	46.0	45.9 ^b
^b Mt. Hood Test Site (M)	2/25	--	13.1	49.3	--
^b Peavine Ridge Pillow (T)	N/R				
Peavine Ridge Pillow (S)	2/28	4	1.0	--	--
Peavine Ridge Pillow (M)	2/28	--	1.1	--	--
Railroad Overpass	2/25	0	0.0	0.0	2.0
Railroad Overpass Plw.(T)	N/R				
Railroad Overpass Plw.(S)	2/25	0	0.0	0.0	--
Railroad Overpass Plw.(M)	2/25	--	0.0	0.0	--
Roaring River Plw. (T)	2/27	--	2.8	--	--
Roaring River Plw. (S)	2/27	13	3.5	9.5	--
Roaring River Plw. (M)	2/27	--	3.2	11.3	--
Saddle Mtn. Pillow (T)	2/25	--	0.0	--	--
Salt Creek Falls	2/25	6	0.7	0.0	13.4
Salt Creek Falls Plw.(T)	2/25	--	2.5	--	--
Salt Creek Falls Plw.(S)	2/25	12	2.0	3.9	--
Salt Creek Falls Plw.(M)	2/25	--	2.5	2.7	--
Santiam Junction	2/26	3	0.5	4.6	21.4
Santiam Junction Plw.(T)	2/26	--	1.5	6.3	--
Santiam Junction Plw.(S)	2/26	4	0.5	7.0	--
Santiam Junction Plw.(M)	2/26	--	1.1	7.2	--
Seine Creek Pillow (T)	3/2	--	0.0	--	--
Still Creek	2/26	8	2.1	12.5	20.8
Summit Lake Pillow (T)	N/R				
Summit Lake Pillow (S)	2/26	41	12.4	20.0	33.1
Summit Lake Pillow (M)	2/26	--	11.2	21.1	--
Timothy Lake	N/R			6.5	12.4 ^b
Waldo Lake	DISCONTINUED				
Weaver Creek	2/26	0	0.0	0.0	0.7 ^b
White Branch Slide	3/1	0	0.0	0.0	7.0
Whitewater Bridge	2/26	0	0.0	0.0	4.8

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BASIC DATA SUPPLEMENT 1

MARCH 1, 1981

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. ^c
UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS AREA 3					
Arbuckle Mountain	2/24	5	1.6	6.3	9.0
Arbuckle Mtn. Plw. (T)	2/24	--	6.1	--	--
Arbuckle Mtn. Plw. (S)	2/24	28	7.6	14.9	--
Arbuckle Mtn. Plw. (M)	2/24	--	7.2	17.4	20.0 ^b
Blue Mountain Camp	2/24	0	0.0	5.7	13.6
Bowman Springs Plw. (T)	2/24	--	1.9	9.3	--
Bowman Springs Plw. (S)	2/24	4	1.4	6.8	--
Bowman Springs Plw. (M)	2/24	--	1.2	8.2	--
Butte Creek Summit	N/R				
Emigrant Springs	2/24	0	0.0	0.0	5.0
Emigrant Springs Plw. (T)	N/R				
Emigrant Springs Plw. (S)	2/24	0	0.0	0.0	--
Emigrant Springs Plw. (M)	2/24	--	0.0	0.2	--
High Ridge Pillow (T)	2/26	--	11.0	18.5	--
High Ridge Pillow (S)	2/26	40	13.1	18.6	29.4
High Ridge Pillow (M)	2/26	--	11.1	17.3	--
Lucky Strike	2/24	8	2.3	7.1	10.9
Lucky Strike Plw. (T)	N/R			2.4	--
Lucky Strike Plw. (S)	2/24	6	1.9	4.0	--
Lucky Strike Plw. (M)	2/24	--	0.4	1.7	9.7 ^b
Madison Butte Pillow (T)	N/R				
Madison Butte Pillow (S)	2/24	0	0.0	0.5	--
Madison Butte Pillow (M)	2/24	--	0.0	0.3	--
Meacham	DISCONTINUED				
Tollgate	DISCONTINUED				
UPPER JOHN DAY WATERSHEDS AREA 4					
Anthony Lake	2/27	39	12.8	20.2	22.7
Arbuckle Mountain	2/24	5	1.6	6.3	9.0
Arbuckle Mtn. Plw. (T)	2/24	--	6.1	--	--
Arbuckle Mtn. Plw. (S)	2/24	28	7.6	14.9	--
Arbuckle Mtn. Plw. (M)	2/24	--	7.2	17.4	20.0 ^b
Blue Mountain Springs	2/24	30	10.6	14.8	14.2
Blue Mtn. Spgs. Plw. (T)	2/24	--	7.2	16.6	--
Blue Mtn. Spgs. Plw. (S)	2/24	31	8.8	13.0	15.1 ^b
Blue Mtn. Spgs. Plw. (M)	2/24	--	4.4	15.2	11.3 ^b
Blue Mountain Summit	2/25	23	6.3	7.5	7.9
Butte Creek Summit	N/R				
Derr	3/2	9	3.4	7.0	8.3
Derr Pillow (T)	N/R				
Derr Pillow (S)	3/2	27	11.5	11.5	--
Derr Pillow (M)	N/R			12.9	--
Gold Center	2/25	20	4.4	9.1	11.5
Gold Center Plw. (T)	2/25	--	3.9	--	--
Gold Center Plw. (S)	2/25	12	3.4	8.3	--
Gold Center Plw. (M)	2/25	--	3.9	6.2	--
Izee Summit	2/23	19	4.2	5.4	6.8
Lucky Strike	2/24	8	2.3	7.1	10.9
Lucky Strike Plw. (T)	N/R			2.4	--
Lucky Strike Plw. (S)	2/24	6	1.9	4.0	--
Lucky Strike Plw. (M)	2/24	--	0.4	1.7	9.7 ^b
Marks Creek	2/26	TR	0.1	0.0	2.9
Ochoco Meadows	2/27	12	3.8	7.7	8.1
Ochoco Mdws. Plw. (T)	N/R				
Ochoco Mdws. Plw. (S)	2/27	12	4.8	11.8	--
Ochoco Mdws. Plw. (M)	N/R			9.4	--
Olive Lake *	DISCONTINUED				
Schoolmarm	DISCONTINUED				
Snow Mountain	2/27	22	7.1	12.0	11.3
Snow Mtn. Plw. (T)	2/27	--	4.1	8.3	--
Snow Mtn. Plw. (S)	2/27	20	6.5	9.8	11.3 ^b
Snow Mtn. Plw. (M)	N/R				
Starr Ridge	2/23	4	1.8	3.8	5.2
Starr Ridge Plw. (T)	2/23	--	1.7	--	--
Starr Ridge Plw. (S)	2/23	4	2.2	5.0	--
Starr Ridge Plw. (M)	2/23	--	1.4	3.0	--
Tipton	2/25	23	5.4	9.1	9.6
Tipton Pillow (T)	2/25	--	6.8	10.2	--
Tipton Pillow (S)	2/25	30	7.9	10.2	12.6 ^b
Tipton Pillow (M)	2/25	--	5.9	8.2	--

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
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				Last Yr.	Ave. ^c
UPPER DESCHUTES, CROOKED WATERSHEDS AREA 5					
Bald Peter	3/2	28	8.8	21.2	22.7 ^b
Caldwell Ranch					
Cascade Summit	2/25	26	6.1	10.5	24.9
Cascade Summit Plw. (T)	2/25	--	8.5	--	--
Cascade Summit Plw. (S)	2/25	35	9.0	12.8	--
Cascade Summit Plw. (M)	2/25	--	8.0	11.0	--
Chemult Alternate	2/27	3	0.6	3.1	10.5
Chemult Alt. Plw. (T)	N/R				
Chemult Alt. Plw. (S)	2/27	0	0.0	3.1	--
Chemult Alt. Plw. (M)	2/27	--	0.0	--	--
Derr	3/2	9	3.4	7.0	8.3
Derr Pillow (T)	N/R				
Derr Pillow (S)	3/2	27	11.5	11.5	--
Derr Pillow (M)	N/R			12.9	--
Hogg Pass	2/26	28	7.4	14.2	34.6
Hogg Pass Pillow (T)	2/26	--	8.4	17.3	--
Hogg Pass Pillow (S)	2/26	32	8.9	17.9	--
Hogg Pass Pillow (M)	2/26	--	8.5	18.0	--
Hungry Flat	3/1	0	0.0	0.0	4.9
Irish-Taylor Pillow (T)	N/R			23.2	--
Irish-Taylor Pillow (S)	2/27	43	13.5	--	34.5 ^b
Irish-Taylor Pillow (M)	2/27	--	16.3	23.1	--
Lionshead *	2/26	12	3.7	6.4	--
Marks Creek	2/26	TR	0.1	0.0	2.9
New Crescent Lake	2/26	3	0.3	5.0	12.1
New Crescent Lake Plw. (T)	2/26	--	0.1	--	--
New Crescent Lake Plw. (S)	2/26	2	0.2	5.4	--
New Crescent Lake Plw. (M)	2/26	--	0.0	2.4	--
New Dutchman Flat #2	3/1	54	21.4	38.5	43.8
Ochoco Meadows	2/27	12	3.8	7.7	8.1
Ochoco Meadows Plw. (T)	N/R				
Ochoco Meadows Plw. (S)	2/27	12	4.8	11.8	--
Ochoco Meadows Plw. (M)	N/R			9.4	--
Racing Creek	3/2	9	2.6	6.4	12.3 ^b
Snow Mountain	2/27	22	7.1	12.1	11.3
Snow Mountain Plw. (T)	2/27	--	4.1	8.3	--
Snow Mountain Plw. (S)	2/27	20	6.5	9.8	11.3 ^b
Snow Mountain Plw. (M)	N/R				
Summit Lake Pillow (T)	N/R				
Summit Lake Pillow (S)	2/26	41	12.4	20.0	33.1
Summit Lake Pillow (M)	2/26	--	11.2	21.1	--
Tamarack	2/24	TR	0.1	2.3	4.6
Tangent	3/1	17	7.2	13.6	20.6
Three Creek Butte	2/25	4	0.6	2.0	9.4
Three Creek Meadow	2/25	5	1.1	6.4	15.2
Three Creek Mdw. Plw. (T)	N/R				
Three Creek Mdw. Plw. (S)	2/25	13	3.2	12.1	--
Three Creek Mdw. Plw. (M)	2/25	--	3.5	8.6	--
Waldo Lake	DISCONTINUED				
Whitewater Meadow *	2/26	8	2.2	0.0	--

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BASIC DATA SUPPLEMENT 1

MARCH 1, 1981

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. ^c
ROGUE, UMPQUA WATERSHEDS AREA 9					
Althouse	2/25	TR	0.1	0.0	7.5
Annie Spring	2/27	52	17.0	29.1	37.2
Beaver Dam Creek	2/28	7	2.1	3.1	12.5
Bigelow Camp Plw.(T)	N/R				
Bigelow Camp Plw.(S)	2/23	0	0.0	0.1	--
Bigelow Camp Plw.(M)	2/23	--	0.0	0.0	--
Big Red Mountain	2/23	27	10.2	21.1	24.6
Big Red Mtn. Plw.(T)	N/R				
Big Red Mtn. Plw.(S)	2/23	24	8.8	17.2	--
Big Red Mtn. Plw.(M)	2/23	--	7.7	16.4	--
Billie Creek Divide	2/26	14	4.2	9.1	18.6
Billie Cr. Div. Plw. (T)	2/26	--	6.0	10.9	--
Billie Cr. Div. Plw. (S)	2/26	18	6.0	10.3	--
Billie Cr. Div. Plw.(M)	2/26	--	5.5	10.2	--
Caliban	2/23	38	14.0	29.0	30.8 ^b
Caliban (Alternate)	2/23	36	14.6	26.0	--
Champion	2/26	11	2.2	3.3	23.3
Cold Springs Camp	2/24	38	12.7	20.7	29.4
Cold Spgs. Camp Plw. (T)	N/R				
Cold Spgs. Camp Plw. (S)	2/24	16	4.8	13.6	--
Cold Spgs. Camp Plw. (M)	2/24	--	3.8	15.2	--
Deadwood Junction	2/28	3	1.1	0.0	8.6
Diamond-Crater Summit		^e			
Diamond Lake	2/25	5	0.9	7.6	17.9
Diamond Lake Plw. (T)	N/R				
Diamond Lake Plw. (S)	2/25	4	0.6	8.2	--
Diamond Lake Plw. (M)	2/25	--	0.4	--	--
Fish Lake	2/26	9	2.8	3.6	11.8 ^b
Fish Lake Pillow (T)	N/R				
Fish Lake Pillow (S)	2/26	4	1.0	4.8	--
Fish Lake Pillow (M)	N/R				
Fourmile Lake	2/26	18	7.4	11.7	20.4 ^b
Fourmile Lake Pillow (T)	N/R			17.1	--
Fourmile Lake Pillow (S)	2/26	33	11.5	15.7	--
Fourmile Lake Pillow (M)	N/R			17.1	--
Grayback Peak	2/23	1	0.4	11.2	20.5
Howard Prairie Reservoir	2/28	7	2.1	1.3	8.3
Hyatt Prairie	2/28	0	0.0	0.1	7.3
Hyatt Prairie Pillow (T)	N/R				
Hyatt Prairie Pillow (S)	N/R			2.2	--
Hyatt Prairie Pillow (M)	N/R			1.1	--
King Mountain #1	2/26	5	0.9	0.0	7.6 ^b
King Mountain #2	2/26	6	1.2	0.0	5.0 ^b
King Mountain #2 Plw.(T)	N/R				
King Mountain #2 Plw.(S)	2/26	6	1.0	--	--
King Mountain #2 Plw.(M)	2/26	--	0.9	--	--
King Mountain #3	2/26	0	0.0	0.0	1.4 ^b
King Mountain #4	2/26	0	0.0	0.0	--
King Mountain #5	2/26	0	0.0	0.0	--
King Mountain #6	2/26	0	0.0	0.0	--
Little Red Mountain	DISCONTINUED				
Mt. Ashland Switchback	2/22	44	15.2	26.2	29.9 ^b
Mule Creek	2/26	0	0.0	0.0	8.1 ^b
North Umpqua	2/26	0	0.0	0.5	13.3
Page Mountain	2/25	TR	0.1	0.0	3.6
Park Headquarters	2/27	72	25.7	40.6	50.7
Red Butte #1	2/26	7	1.2	0.0	11.9
Red Butte #2	2/26	4	1.0	0.0	7.8
Red Butte #3	2/26	0	0.0	0.0	4.6 ^b
Red Butte #4	2/26	0	0.0	0.0	1.7
Red Butte #5	2/26	0	0.0	0.0	0.4
Red Butte #6	2/26	0	0.0	0.0	0.2
Seven Mile	2/25	36	10.0	17.7	28.0 ^b
Seven Mile Pillow (T)	2/25	--	8.8	--	--
Seven Mile Pillow (S)	2/25	28	8.0	16.4	--
Seven Mile Pillow (M)	2/25	--	7.5	17.4	--
Silver Burn	2/27	0	0.0	0.0	12.0
Siskiyou Summit	2/27	4	0.6	0.0	6.6
Ski Bowl Road	2/23	33	11.6	19.6	25.4 ^b
South Fork Canal	3/1	0	0.0	0.0	2.0 ^b
Trap Creek	2/26	0	0.0	0.0	11.6

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. ^c
KLAMATH WATERSHEDS AREA 10					
Annie Spring	2/27	52	17.0	29.1	37.2
Billie Creek Divide	2/26	14	4.2	9.1	18.6
Billie Cr. Div. Plw.(T)	2/26	--	6.0	10.9	--
Billie Cr. Div. Plw.(S)	2/26	18	6.0	10.3	--
Billie Cr. Div. Plw.(M)	2/26	--	5.5	10.2	--
Chemult Alternate	2/27	3	0.6	3.1	10.5
Chemult Alternate Plw.(T)	N/R				
Chemult Alternate Plw.(S)	2/27	0	0.0	3.1	--
Chemult Alternate Plw.(M)	2/27	--	0.0	--	--
Chiloquin (PP&L)	N/R			0.0	1.0 ^b
Cold Springs Camp	2/24	38	12.7	20.7	29.4
Cold Spgs. Camp Plw. (T)	N/R				
Cold Spgs. Camp Plw. (S)	2/24	16	4.8	13.6	--
Cold Spgs. Camp Plw. (M)	2/24	--	3.8	15.2	--
Crazyman Flat *	2/25	10	2.7	11.9	8.0
Crowder Flat (Calif.)*	2/26	0	0.0	0.0	2.2
Crystal (PP&L)	2/28	0	0.0	0.0	8.4 ^b
Diamond-Crater Summit		^e			
Dog Hollow *	2/25	1	0.1	0.0	0.8
Finley Corrals *	2/26	14	4.2	18.4	14.0
Fort Klamath (PP&L)	2/28	0	0.0	0.0	3.5 ^b
Fourmile Lake	2/26	18	7.4	11.7	20.4 ^b
Fourmile Lake Plw. (T)	N/R			17.1	--
Fourmile Lake Plw. (S)	2/26	33	11.5	15.7	--
Fourmile Lake Plw. (M)	N/R			17.1	--
Gerber	3/1	0	0.0	0.0	2.3 ^b
Harriman (PP&L)	2/28	0	0.0	0.0	4.3 ^b
Howard Prairie	2/28	7	2.1	1.3	8.3
Hyatt Prairie Reservoir	2/28	0	0.0	0.1	7.3
Hyatt Prairie Res.Plw.(T)	N/R				
Hyatt Prairie Res.Plw.(S)	N/R			2.2	--
Hyatt Prairie Res.Plw.(M)	N/R			1.1	--
Kirk (PP&L)	N/R			0.0	5.5 ^b
Park Headquarters	2/27	72	25.7	40.6	50.7
Quartz Mountain	2/24	1	0.1	5.6	5.3
Quartz Mtn. Pillow (T)	2/24	--	2.2	--	--
Quartz Mtn. Pillow (S)	2/24	6	2.4	6.7	--
Quartz Mtn. Pillow (M)	2/24	--	2.4	6.5	--
Seven Mile	2/25	36	10.0	17.7	28.0 ^b
Seven Mile Pillow (T)	2/25	--	8.8	--	--
Seven Mile Pillow (S)	2/25	28	8.0	16.4	--
Seven Mile Pillow (M)	2/25	--	7.5	17.4	--
State Line (Calif.) *	2/26	12	3.6	6.3	7.1
Strawberry	2/27	11	3.0	6.3	5.9 ^b
Strawberry Pillow (T)	N/R				
Strawberry Pillow (S)	2/27	8	1.9	5.7	--
Strawberry Pillow (M)	N/R			4.3	--
Summer Rim *	2/25	22	6.6	19.4	12.0 ^b
Summer Rim	2/28	27	8.2	14.8	14.0
Summer Rim Pillow (T)	2/27	--	7.3	14.9	--
Summer Rim Pillow (S)	2/27	26	6.3	15.2	16.1 ^b
Summer Rim Pillow (M)	2/27	--	9.6	16.8	8.3 ^b
Sycan Flat *	2/25	3	0.4	2.8	5.6
Taylor Butte	2/27	6	0.8	1.5	4.2
Taylor Butte Pillow (T)	2/27	--	1.7	3.9	--
Taylor Butte Pillow (S)	2/27	6	0.8	2.5	--
Taylor Butte Pillow (M)	2/27	--	1.5	2.6	--

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 1

MARCH 1, 1981

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. ^c
LAKE COUNTY, GOOSE LAKE WATERSHEDS AREA 11					
Adin Mountain (Calif.)	2/26	12	3.9	11.9	10.5
Bald Mountain (Nev.)	2/26	2	0.6	8.4	2.7
Bear Flat Meadow *	2/26	11	3.3	18.0	8.0
Camas Creek #1	2/23	6	2.1	10.7	8.4
Camas Creek #2	2/23	10	3.2	12.4	--
Cedar Pass (Calif.)	2/27	24	8.2	19.0	12.9
Colvin Creek *	2/26	3	0.9	7.7	4.1 ^b
Cox Flat *	2/26	6	1.8	2.1	6.8
Crowder Flat (Calif.) *	2/26	0	0.0	0.0	2.2
Dismal Swamp (Calif.) *	2/26	45	16.2	32.0	--
Dismal Swamp #2 Plw.(T)	N/R				
Dismal Swamp #2 Plw.(S)	2/23	45	16.2	--	--
Dismal Swamp #2 Plw.(M)	N/R				
Finley Corrals *	2/26	14	4.2	18.4	14.0
Hart Mountain *	2/26	3	0.9	3.5	1.4
Little Bally Mtn. (Nev.)	2/26	3	0.9	7.7	2.6
Mt. Bidwell (Calif.)	2/23	36	13.4	29.9	--
North Star (Calif.)	2/23	27	10.4	18.9	--
Patton Meadows *	2/26	20	6.0	22.3	14.5
Quartz Mountain	2/24	1	0.1	5.6	5.3
Quartz Mountain Plw.(T)	2/24	--	2.2	--	--
Quartz Mountain Plw.(S)	2/24	6	2.4	6.7	--
Quartz Mountain Plw.(M)	2/24	--	2.4	6.5	--
Rogger Meadows *	2/26	12	3.7	19.4	--
Sherman Valley *	2/26	17	5.3	18.4	10.3
Silver Creek	2/24	1	0.3	0.0	1.1
Silver Creek Plw.(T)	N/R				
Silver Creek Plw.(S)	2/25	20	5.6	5.8	--
Silver Creek Plw.(M)	N/R			5.8	--
State Line (Calif.) *	2/26	12	3.6	6.3	7.1
Strawberry	2/27	11	3.0	6.3	5.9 ^b
Strawberry Plw.(T)	N/R				
Strawberry Plw.(S)	2/27	8	1.9	5.7	--
Strawberry Plw.(M)	N/R			4.3	--
Summer Rim *	2/25	22	6.6	19.4	12.0 ^b
Summer Rim	2/28	27	8.2	14.8	14.0
Summer Rim Plw.(T)	2/27	--	7.3	14.9	--
Summer Rim Plw.(S)	2/27	26	6.3	15.2	16.1 ^b
Summer Rim Plw.(M)	2/27	--	9.6	16.8	8.3 ^b
Sycan Flat *	2/25	3	0.4	2.8	5.6

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. ^c
HARNEY BASIN WATERSHEDS AREA 12					
Blue Mountain Springs	2/24	30	10.6	14.8	14.2
Blue Mtn. Spgs. Plw.(T)	2/24	--	7.2	16.6	--
Blue Mtn. Spgs. Plw.(S)	2/24	31	8.8	13.0	15.1 ^b
Blue Mtn. Spgs. Plw.(M)	2/24	--	4.4	15.2	11.3 ^b
Buck Pasture *	2/27	0	0.0	0.0	2.3
Buckskin Lake *	2/27	0	0.0	0.0	0.3
Call Meadows *	2/27	TR	0.1	1.9	3.7
Delintment Lake		^c			
Denio Creek *	2/27	0	0.0	0.0	0.7
Disaster Peak (Nev.)	2/27	7	2.5	16.2	11.6
Emigrant Butte	2/27	0	0.0	0.1	3.7 ^b
Fish Creek *	2/27	36	13.0	24.8	20.0
Fish Creek	2/24	43	15.3	26.6	20.5 ^b
Fish Creek Plw.(T)	N/R			27.9	--
Fish Creek Plw.(S)	2/24	44	16.0	28.0	--
Fish Creek Plw.(M)	2/24	--	12.0	26.8	--
Gov't. Corrals	2/26	27	9.8	--	--
Hart Mountain *	2/26	3	0.9	3.5	1.4
Idlewild Camp Alt.	2/27	0	0.0	0.1	4.6 ^b
Izee Summit	2/23	10	4.2	5.4	6.8
Lake Creek R.S.	2/24	18	7.6	9.6	9.0
Lake Creek R.S. Plw.(T)	N/R			14.3	--
Lake Creek R.S. Plw.(S)	2/24	19	8.5	11.0	--
Lake Creek R.S. Plw.(M)	N/R			10.6	--
Oregon Canyon *	2/27	0	0.0	8.4	4.4
Rock Springs	2/23	7	3.2	7.6	5.0
Rock Springs Pillow (T)	2/23	--	1.7	--	--
Rock Springs Pillow (S)	2/23	6	2.5	6.0	--
Rock Springs Pillow (M)	2/23	--	1.6	--	--
Silvies *	N/R			--	7.6
Silvies	2/24	16	6.4	13.1	9.8
Silvies Plw. (T)	2/24	--	5.5	12.9	--
Silvies Plw. (S)	N/R			13.1	--
Silvies Plw. (M)	2/24	--	5.2	6.3	19.3 ^b
Snow Mountain	2/27	22	7.1	12.1	11.3
Snow Mountain Plw.(T)	2/27	--	4.1	8.3	--
Snow Mountain Plw.(S)	2/27	20	6.5	9.8	11.3 ^b
Snow Mountain Plw.(M)	N/R				
Starr Ridge	2/23	4	1.8	3.8	5.2
Starr Ridge Pillow (T)	2/23	--	1.7	--	--
Starr Ridge Pillow (S)	2/23	4	2.2	5.0	--
Starr Ridge Pillow (M)	2/23	--	1.4	3.0	--
Stinking Water	2/27	TR	0.1	0.0	2.4
Trout Creek *	2/27	16	5.3	7.4	6.7
"V" Lake *	2/27	TR	0.1	9.4	6.1

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 2

MARCH 1, 1981

PRECIPITATION (Inches)

PRECIPITATION (Inches)		CURRENT INFORMATION		PAST RECORD	
DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	Date of Reading	Precipitation	Last Year	Average ^c
Aneroid Lake #2 (Wallowa County)	7300	From 8/19 To 2/25	34.44"		
Arbuckle Mountain (Morrow County)	5400	From 1/29 To 2/24	3.38"		
Beaver Reservoir (Union County)	5150	From 1/28 To 2/26	3.36"		
Bigelow Camp (Josephine County)	5120	From 1/29 To 2/23	7.68"		
Big Red Mountain (Jackson County)	6250	From 1/26 To 2/23	7.08"		
Blazed Alder (Clackamas County)	3650	From 12/31 To 2/28	21.00"		
Blue Mountain Springs (Grant County)	5900	From 1/29 To 2/24	4.80"		
Bourne (Baker County)	5800	From 1/30 To 2/25	5.64"		
Bowman Springs (Union County)	4580	From 1/29 To 2/24	3.75"		
Cascade Summit (Lane County)	4880	From 1/29 To 2/25	8.76"		
Chemult (Klamath County)	4760	From 2/2 To 2/27	3.00"		
Clear Lake (Wasco County)	3500	From 1/29 To 2/26	7.44"		
Cold Springs (Klamath County)	6100	From 1/28 To 2/24	5.52"		
County Line (Umatilla County)	4800	From 1/29 To 2/24	2.52"		
Daly Lake (Linn County)	3600	From 2/2 To 2/27	10.80"		
Derr (Wheeler County)	5670	From 1/30 To 3/2	3.12"		
Diamond Lake (Douglas County)	4600	From 1/27 To 2/25	6.00"		
Emigrant Springs (Umatilla County)	3925	From 1/29 To 2/24	5.28"		
Fish Creek (Harney County)	7900	From 1/30 To 2/24	3.96"		
Fish Lake (Jackson County)	4665	From 1/27 To 2/26	5.28"		
Fourmile Lake (Klamath County)	6000	From 1/27 To 2/26	5.88"		
Gold Center (Grant County)	5340	From 1/30 To 2/25	2.76"		
Greenpoint (Hood River County)	3200	From 1/29 To 2/24	14.16"		

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 2

MARCH 1, 1981

PRECIPITATION (Inches)

DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT INFORMATION		PAST RECORD	
		Date of Reading	Precipitation	Last Year	Average ^c
High Ridge (Umatilla County)	4150	From 1/28 To 2/26	9.48"		
Hogg Pass (Jefferson County)	4755	From 1/28 To 2/26	12.48"		
Holland Meadows (Lane County)	4900	From 2/2 To 2/27	7.80"		
Hyatt Prairie (Jackson County)	4900	From 1/31 To 2/28	3.00"		
Irish-Taylor (Deschutes County)	5500	From 1/30 To 2/27	8.40"		
Jump Off Joe (Linn County)	3400	From 1/28 To 2/26	11.52"		
King Mountain (Douglas County)	4500	From 1/27 To 2/26	8.04"		
Lake Creek (Grant County)	5120	From 1/29 To 2/24	3.00"		
Little Meadows (Linn County)	4000	From 12/29 To 2/27	20.64"		
Lucky Strike (Umatilla County)	5050	From 1/29 To 2/24	3.50"		
Madison Butte (Morrow County)	5250	From 1/29 To 2/24	2.28"		
Marion Forks (Linn County)	2730	From 1/28 To 2/26	12.12"		
McKenzie (Lane County)	5000	From 2/2 To 2/28	14.52"		
Moss Springs (Union County)	5850	From 2/1 To 2/25	6.72"		
Mt. Hood Test Site (Clackamas County)	5400	From 12/30 To 2/25	19.25"		
Mt. Howard (Wallowa County)	7910	From 2/1 To 2/25	4.32"		
Mud Ridge (Clackamas County)	4050	From 1/29 To 2/26	9.72"		
New Crescent Lake (Klamath County)	4800	From 1/29 To 2/26	5.52"		
North Fork Reservoir (Multnomah County)	3120	From 1/28 To 2/28	21.00"		
Ochoco Meadows (Crook County)	5200	From 1/30 To 2/27	4.20"		
Peavine (Clackamas County)	3500	From 12/31 To 2/28	11.04"		
Quartz Mountain (Lake County)	6300	From 1/27 To 2/24	3.60"		
Railroad Overpass (Lane County)	2750	From 1/29 To 2/25	7.08"		

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 2

MARCH 1, 1981

PRECIPITATION (Inches)

DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT INFORMATION		PAST RECORD	
		Date of Reading	Precipitation	Last Year	Average ^c
Roaring River (Lane County)	4900	From 2/2 To 2/27	9.12"		
Rock Springs (Grant County)	5100	From 1/28 To 2/23	2.16"		
Salt Creek Falls (Lane County)	4000	From 1/29 To 2/25	8.04"		
Santiam Junction (Lane County)	3750	From 1/28 To 2/26	11.28"		
Schneider Meadows (Baker County)	5400	From 2/1 To 2/25	8.64"		
Seven Mile (Klamath County)	5725	From 1/29 To 2/25	8.16"		
Silvies (Harney County)	6900	From 1/30 To 2/24	1.44"		
Starr Ridge (Grant County)	5156	From 1/28 To 2/23	2.76"		
Strawberry (Lake County)	5760	From 2/3 To 2/27	1.92"		
Summer Rim (Lake County)	7100	From 7/22 To 2/27	13.44"		
Summit Lake (Klamath County)	5600	From 1/29 To 2/26	8.88"		
Taylor Butte (Klamath County)	5040	From 1/26 To 2/27	3.48"		
Taylor Green (Baker County)	5740	From 2/1 To 2/25	4.80"		
Three Creek Meadows (Deschutes County)	5650	From 1/23 To 2/25	7.32"		
Tipton (Baker County)	5100	From 1/30 To 2/25	3.00"		
Wolf Creek (Union County)	5700	From 1/30 To 2/24	3.36"		
Silver Creek (Lake County)	5720	From 2/5 To 2/25	3.36"		

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

The Following Organizations Cooperate in the Oregon Snow Survey Work

STATE

Idaho Cooperative Snow Surveys
Nevada Cooperative Snow Surveys
Oregon State University
Oregon Department of Water Resources
Soil and Water Conservation District of Oregon

COUNTY

Douglas County Water Resources Survey

FEDERAL

Department of Agriculture
Cooperative Extension Service
Forest Service
Soil Conservation Service
Department of Army
Corps of Engineers
Department of Commerce
NOAA, National Weather Service
Department of Energy
Bonneville Power Administration
Department of the Interior
Bureau of Land Management
Fish and Wildlife Service
Geological Survey
Water and Power Resources Service

PUBLIC UTILITIES

Pacific Power and Light Company
Portland General Electric Company
California-Pacific National

MUNICIPALITIES

City of Baker
City of La Grande
City of Portland
City of The Dalles
City of Walla Walla

IRRIGATION DISTRICTS

Arnold Irrigation District
Associated Ditch Companies
Burnt River Irrigation District
Central Oregon Irrigation District
East Fork Irrigation District
Grants Pass Irrigation District
Hood River Irrigation District
Jordan Valley Irrigation District
Juniper Flat Irrigation District
Lakeview Water Users, Incorporated
Medford Irrigation District
Middle Fork Irrigation District
North Board of Control - Owyhee Project
Ochoco Irrigation District
Rogue River Valley Irrigation District
South Board of Control - Owyhee Project
Squaw Creek Irrigation District
Talent Irrigation District
Tumalo Project
Vale - Oregon Irrigation District
Warm Springs Irrigation District

PRIVATE ORGANIZATIONS

The Crag Rats, Hood River, Oregon

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